

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF BILLINGSLEY ROAD AND ST. PATRICKS DRIVE IN CHARLES COUNTY. BILLINGSLEY ROAD IS ASSUMED TO RUN IN A EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE-PERMISSIVE LEFT TURN PHASE FOR EASTBOUND BILLINGSLEY ROAD. VIDEO DETECTION WILL BE USED.

CONTROLLER REQUIREMENTS

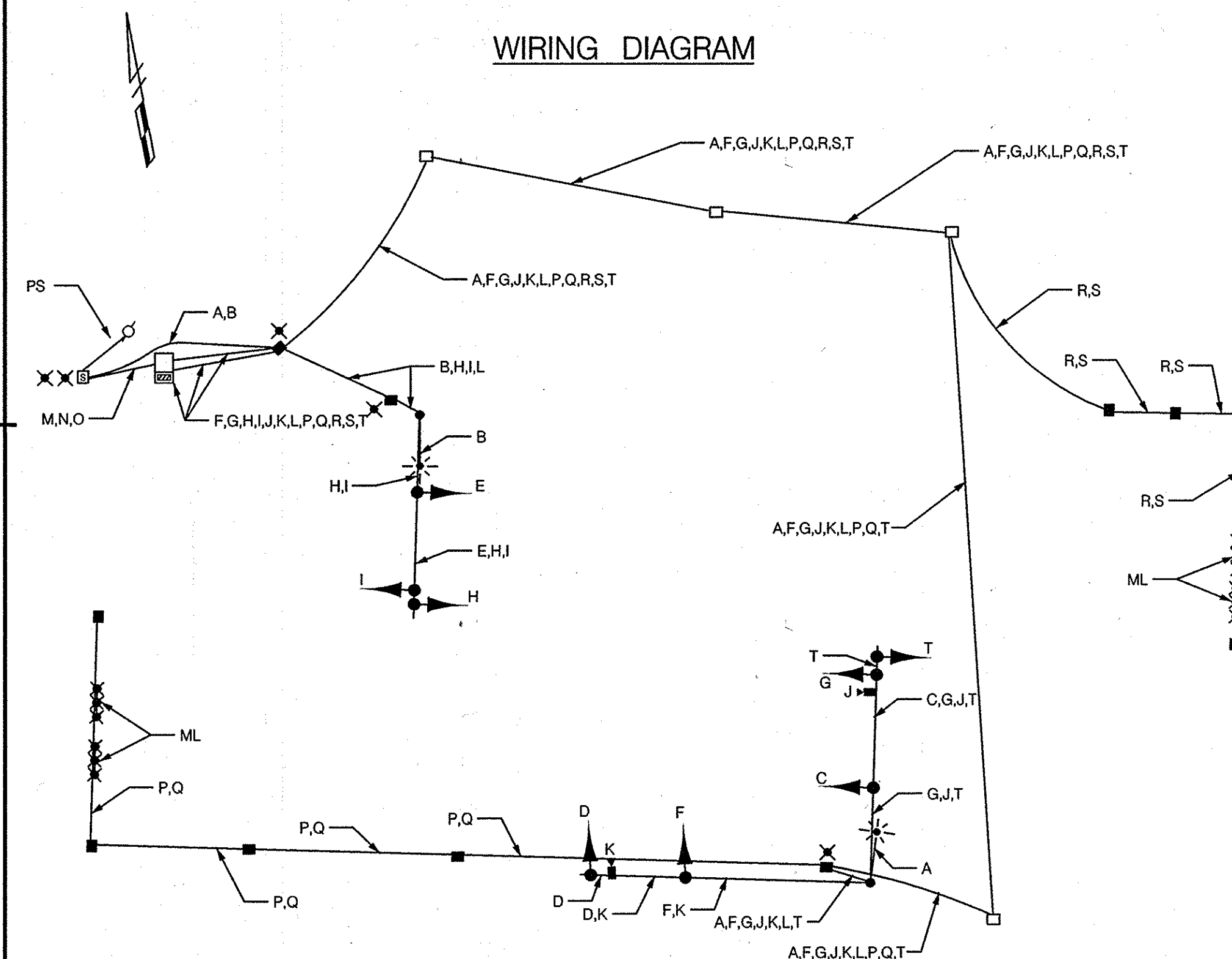
INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER AND VIDEO DETECTION INTERFACE EQUIPMENT HOUSED IN A NEMA "6" BASE MOUNTED CABINET.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE MSHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR MUST PROVIDE MR. SNYDER WITH THE NEAREST ADDRESS, ZIP CODE, AND PHONE NUMBER.

THE CONTRACTOR SHALL DELIVER THE CONTROLLER, CABINET, AND RELATED EQUIPMENT TO THE SHA SIGNAL SHOP AT 7491 CONNELLEY DRIVE, HANOVER MARYLAND 21076 FOR WIRING AND TESTING.

WIRING DIAGRAM



WIRING KEY

A-B	2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE
C-E	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
F-I	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
J-K	VIDEO DETECTION CABLE
L	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
M-O	1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
P-S	MICRO-LOOP PROBE LEAD-IN
T	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
PS	PROPOSED ELECTRIC SERVICE GROUND ROD
ML	MICRO-LOOP PROBE LEAD-IN

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

QUANTITY	DESCRIPTION
LS	MAINTENANCE OF TRAFFIC
4 CY	TEST PIT EXCAVATION
90 LF	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
370 LF	FURNISH AND INSTALL 10 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
25 EA	FURNISH AND INSTALL 12 IN. L.E.D. VEHICULAR SIGNAL HEAD SECTION
3 EA	FURNISH AND INSTALL 8 IN. L.E.D. VEHICULAR SIGNAL HEAD SECTION
2 EA	FURNISH AND INSTALL 15 FT. STREET LIGHTING ARM
2 EA	FURNISH AND INSTALL 250 WATT HPSV LUMINAIRE
1 EA	FURNISH AND INSTALL 50 FT. MAST ARM AND POLE
1 EA	FURNISH AND INSTALL TWIN 50 FT./70 FT. MAST ARMS AND POLE
2 EA	FURNISH AND INSTALL VIDEO DETECTION CAMERA AND CABLE
1 EA	FURNISH AND INSTALL VIDEO INTERFACE EQUIPMENT
1000 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
180 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
120 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
10 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
75 LF	FURNISH AND INSTALL WOOD SIGN SUPPORTS (4 IN. X 6 IN.)
500 LF	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER WIRE
70 LF	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
1 EA	FURNISH AND INSTALL METERED SERVICE PEDESTAL
75 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR (NO. 4 A.W.G.)
10 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
5 EA	FURNISH AND INSTALL GROUND ROD 3/4 IN. DIAMETER X 10 FT. LENGTH
80 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 A.W.G.)
1770 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 A.W.G.)
600 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (NO. 12 A.W.G.) - TRAY CABLE
1 EA	FURNISH AND INSTALL BASE MOUNTED CABINET AND CONTROLLER
3 EA	FURNISH AND INSTALL D3-2 SINGLE FACE SIGN (VAR. X 16") - MAST ARM MOUNT
2 EA	FURNISH AND INSTALL W3-3 SIGN (48" X 48") WITH "NEW" PANEL (30" X 30") - GROUND MOUNT
1 EA	CUT, CLEAN, GALVANIZE AND CAP MAST ARM
4 EA	NON-INVASIVE MICRO-LOOP PROBE WITH 1000 FT. LEAD-IN
1 EA	4-CHANNEL DETECTOR AMPLIFIER
30 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
2 EA	R3-5R SIGN (30" X 36") - MAST ARM MOUNT

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PHASE CHART

	1	2	3	4	5	6	7	8
	R	R	R	R	R	R	R	R
	Y	Y	Y	Y	Y	Y	Y	Y
	G	G	G	G	G	G	G	G
PHASE 1 & 6	G	G	G	R	R	R	R	R
1 & 6 CHANGE	G	G	G	R	R	R	R	R
PHASE 2 & 5	G	G	G	G	G	R	R	R
2 & 5 CHANGE	Y	Y	Y	Y	Y	R	R	R
PHASE 4	R	R	R	R	R	R	G	G
4 CHANGE	R	R	R	R	R	R	Y	Y
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLY	FLR	FLR

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

MRS. KIM TRAN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
(410) 841-1003

MR. ANDRE FUTRELL
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
(410) 841-1002

MR. JOE HORTY
ASSISTANT DISTRICT ENGINEER - UTILITIES
(410) 841-1005

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
(410) 787-7630

MR. EUGENE BAILEY
CHIEF, SIGN OPERATIONS
(410) 787-7676

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS
(410) 787-7631

MS. DARLENE EIDE
SUPPLY OFFICE
SIGNAL SHOP WAREHOUSE
(410) 787-7668

MR. ED RODENHIZER
CHIEF, SIGNAL OPERATIONS
(410) 787-7652

SHA NO: BW365M84
BILLINGSLEY RD@ST.
PATRICK'S DR

SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION PLAN BILLINGSLEY ROAD AND ST. PATRICKS DR.

TRAFFIC **C**ONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923-7101
FAX (410) 923-6473
EMAIL TRAFFIC@TRAFFIC-CONCEPTS.COM

SCALE NONE DATE 11-28-07 CONTRACT NO. PEM07-031

DESIGNED BY T. ZAYDEL COUNTY CHARLES
DRAWN BY T. ZAYDEL LOGMILE 5.79
CHECKED BY K. SCHMID T.I.M.S. NO. 1-694
F.A.P. NO. NA TOD NO.

DRAWING NO. TS - 4634 GI SHEET NO. 2 OF 2